

CLAIMS

What is claimed is:

SUB A27
1. A method for updating application data in a client device of a data
5 transfer and synchronization system, said method comprising the steps of:

downloading a first change log of a plurality of change logs from a server
system, each of said plurality of change logs reflecting changes to said
application data;

adding said first change log to an aggregate log;

10 deleting said first change log;

repeating said downloading, adding, and deleting steps for a next change
log of said plurality of change logs until no additional change logs exist; and

applying said aggregate log to said application data to update said
application data.

15 2. The method of claim 1, wherein said adding step further comprises
the steps of:

(a) retrieving information for a valid item in said application data;

(b) updating a map of said aggregate log, said map storing meta-data;

20 (c) writing said item to said aggregate log;

(d) updating a location of said valid item in said map; and

(e) repeating steps (a) – (d) for all remaining valid items of a current
change log.

3. The method of claim 2, further comprising the step of:
- (f) compacting said aggregate log if a compact threshold is exceeded.

4. The method of claim 1, wherein said application data comprises
5 data classes for contacts, internet browser bookmarks, calendar events, email
messages, notes, tasks, and files.

5. The method of claim 4, wherein said contacts comprise records
identifying names, addresses, phone numbers, and email addresses for a
10 plurality of individuals.

6. The method of claim 4, wherein said files comprise word processor
specific documents, electronic presentations, spreadsheets, and executable files
in binary format.

7. The method of claim 1, wherein said application data is in a
universal data format.

8. An apparatus for updating application data in a client device of a
20 data transfer and synchronization system, said apparatus comprising:

a downloading routine for iteratively retrieving a plurality of change logs
from a server system, each of said plurality of change logs reflecting changes to
said application data;

a merging routine for iteratively aggregating the contents of said plurality of change logs to an aggregate log;

a change log deletion routine for iteratively deleting said plurality of change logs; and

5 an updating routine for applying the contents of said aggregate log to said application data to update said application data.

9. The apparatus of claim 8, wherein said merging routine further comprises:

10 an item retrieval routine for retrieving a plurality of items from said application data;

a map update routine for updating a map of said aggregate log wherein said map stores meta-data;

15 a field retrieval routine for retrieving field information from said plurality of items from said application data; and

an item location update routing for updating the location of a plurality of items in said map.

20 10. The apparatus of claim 9, wherein said merging routine further comprises:

an aggregate log compacting routine.

11. A method for aggregating the contents of accumulated change logs into an aggregate log and applying said aggregate log to update application data

in a first client device of a data transfer and synchronization system, said method comprising the steps of:

downloading a first change log of a plurality of change logs from a server system, each of said plurality of change logs reflecting changes to said application data;

adding said first change log to an aggregate log;

deleting said first change log;

repeating said downloading, adding, and deleting steps for a next change log of said plurality of change logs until no additional change logs exist; and

applying said aggregate log to said application data to update said application data.

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